

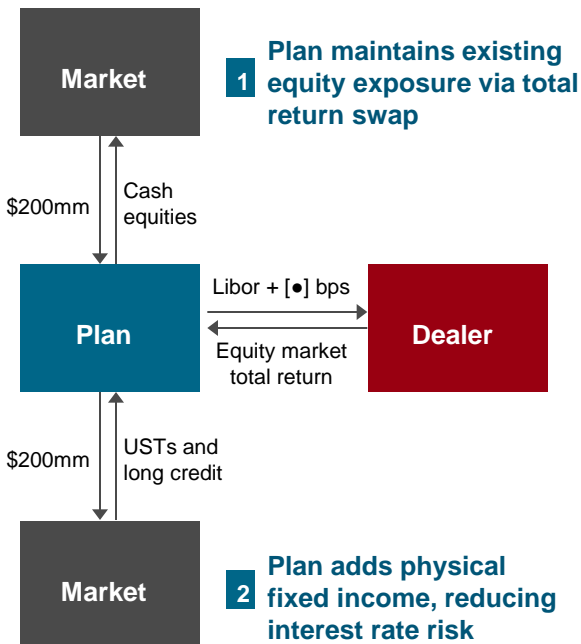
Plan situation and objective

- Plan assets of \$1bn allocated to equities (60%) and fixed income (40%) with a 25% interest rate hedge ratio
- Plan liability of \$1.25bn with ~12 year duration profile and 80% funded status
- Plan has significant downside exposure to rates and equities
- Plan sponsor objective is to shape the funded status outcomes and minimize volatility across equity, interest rate, and credit spread risks
- Minimizing funded status volatility is key due to large plan size relative to company market capitalization

LGIMA solution

- 1 Replace \$200mm of cash equity portfolio with total return swaps
- 2 Target 60% interest rate hedge and 15% credit spread hedge vs. liabilities utilizing a mix of physical Treasuries, Treasury futures, and long duration credit
- 3 Sell 3-year payer swaptions to commit to increasing hedge ratio to 80% at higher pre-determined rate levels (ATMF +50 bps) and raise a premium of \$12mm
- 4 Allocate premium from the payer swaption sale to purchase 3-year 95-75 put spread protection on \$200mm of equity portfolio

Strategy benefits the plan when the plan needs it most (scenarios in which rates and equity markets are down)



Funded Status Sensitivities (%)	Funded Status Sensitivity to Δ in Equities							
	-30%	-20%	-10%	0%	10%	20%	30%	
Funded Status Sensitivity to Δ in Rates	150 bps	75%	80%	86%	91%	97%	102%	108%
	100 bps	72%	77%	82%	87%	92%	98%	103%
	50 bps	69%	74%	79%	84%	88%	93%	98%
	0 bps	66%	71%	75%	80%	85%	89%	94%
	-50 bps	64%	68%	73%	77%	81%	85%	90%
	-100 bps	62%	66%	70%	74%	78%	82%	86%
	-150 bps	60%	64%	67%	71%	75%	79%	83%

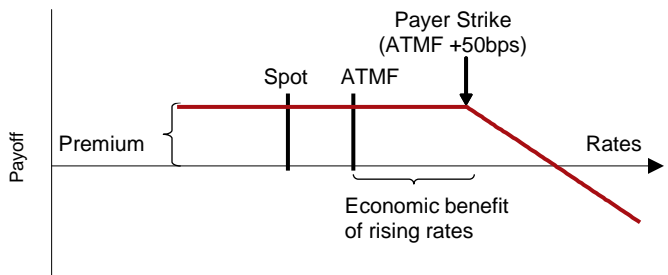
Funded status will rise if rates rise
Funded status will fall if rates fall

Funded status will fall if equities fall
Funded status will rise if equities rise

Funded Status Sensitivities (%)	Funded Status Sensitivity to Δ in Equities							
	-30%	-20%	-10%	0%	10%	20%	30%	
Funded Status Sensitivity to Δ in Rates	150 bps	71%	75%	79%	84%	89%	95%	100%
	100 bps	71%	75%	78%	83%	88%	93%	98%
	50 bps	70%	74%	77%	81%	86%	91%	96%
	0 bps	70%	73%	76%	80%	85%	89%	94%
	-50 bps	69%	73%	75%	79%	83%	87%	92%
	-100 bps	68%	72%	74%	78%	82%	86%	90%
	-150 bps	68%	71%	74%	77%	81%	85%	88%

Rate upside partially monetized
Significant downside equity protection
Equity upside retained
Significant protection from falling rates

3 Plan sells payer swaptions due to favorable market conditions and overall funded status asymmetry



4 Plan hedges \$200mm equity downside while maintaining current upside via put spread

